



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,519	07/11/2003	James Owen	BEAS-01361US0	6588
23910 7590 10/17/2007 FLIESLER MEYER LLP 650 CALIFORNIA STREET 14TH FLOOR SAN FRANCISCO, CA 94108			EXAMINER ALAM, SHAHID AL	
			ART UNIT 2162	PAPER NUMBER
			MAIL DATE 10/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/618,519

Applicant(s)

OWEN ET AL.

Examiner

Shahid Al Alam

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8,25-30 and 32-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,25-30 and 32-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03312004-09212007.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed August 9, 2007 have been fully considered but they are not persuasive.
2. Applicants argue that Sim discloses a single data repository but not a plurality of repositories and Van Huben does not disclose a data structure including or refereeing to a path that uniquely specifies the data structure's location in the VCR.

Examiner respectfully disagrees all of the allegations as argued. Examiner, in his previous office action, gave detail explanation of claimed limitation and pointed out exact locations in the cited prior art.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111 [R-1]

Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

In the above case it is concluded that the prior art **disclosure need not be express in order to anticipate**. Even if a prior art inventor does not recognize a function of his or her process, the process can anticipate if that function was inherent. To establish inherency, the extrinsic evidence must make clear that the missing

Art Unit: 2162

descriptive matter is necessarily present in the thing described in the reference, and **that it would be so recognized by persons of ordinary skill. Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art.**

Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art. However, the discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer. Insufficient prior understanding of the inherent properties of a known composition does not defeat a finding of anticipation.

Furthermore, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the cited references because VCR represents a plurality content repositories logically as one single content repository of Sim's teaching would have allowed Van Huben' system to optimized, so that large payload files can be distribute across existing networks (including the Internet and corporate intranets) using a transport layer network overlay to push content to the edge of the network as suggested by Sim's at col. 9, lines 9-12.

Art Unit: 2162

"Reason, suggestion, or motivation to combine two or more prior art references in single invention may come from references themselves, from knowledge of those skilled in art that certain references or disclosures in references are known to be of interest in particular field, or from nature of problem to be solved;" Pro-Mold and Tool Co. v. Great Lakes Plastics Inc. U.S. Court of Appeals Federal Circuit 37 USPQ2d 1626 Decided February 7, 1996 Nos. 95-1171, - 1181

"[q]uestion is whether there is something in prior art as whole to suggest desirability, and thus obviousness, of making combination." Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al. U.S. Court of Appeals Federal Circuit 221 USPQ 481 Decided Mar. 21, 1984 No 83-1178.

As per Figure 7, Sim clearly teaches a plurality of repository or storage devices. Combination of Sim and Van Huben clearly teaches data structure.

Van Huben teaches a **virtual DATA REPOSITORY** comprised of one or more physical **repositories**. The underlying repositories can be a simple file management system such as the Distributed File System (DFS) or a simple **directory structure** organized on a hard or floppy disk. A **directory structure** can be established using the Library, Level and Data Type as **the branches of the directory tree**. Files in the Data Repository are tracked using pointers in the Control Repository documents.

For the above reasons, Examiner believed that rejection of the last Office action was proper.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 4-8, 25-30, and 32-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,325,594 issued to Gary Van Huben et al. ("Van Huben") in view of US Patent No. 6,857,012 issued to Siew Sim et al. ("Sim").

With respect to claim 1, Van Huben teaches a storage medium for storing data for access by an application program being executed on a computer system (see abstract), comprising:

a data structure stored in said memory, the data structure including or referring to: a name (figure 3B; C11 :L13-34; figure 11 B; C23:L41-51);

a content repository identifier (C14:115-18);
a property (figure 3B; C10:L39-56);
a property definition, path (figure 3B; C10:L39-56);
a reference to a parent data structure (figure 4A; C11 :L1-12);
wherein the data structure is logically part of a virtual content repository (VCR),
and wherein the VCR represents a plurality of content repositories logically as one
single content repository encompassing the plurality of content repositories from the
application program's standpoint (Figures 4A and 4B);
wherein the path uniquely specifies the data structure's location in the
VCR(C14:L9-30) and wherein a content repository is a searchable data store (see
abstract).

Van Huben does not explicitly indicate VCR represents plurality of content
repositories logically as one single content repository as claimed.

Sim discloses claimed VCR represents plurality of content repositories logically
as one single content repository. Sim teaches stations of SCDN are organized in a
logical virtual tree structure in which each node in the tree has a set of attributes. Thus,
each Station has an attribute set that is stored in the node and can be represented in
any convenient data structure, e.g., the attribute set can be represented as an attribute
bitmap. Each Station (i.e., node) also contains a representation of the rolled up attribute
set of each of the station's child-Stations. This representation is called the "Rolled Up
Set of Attributes" and any convenient data structure can be used for it, e.g., a "Rolled
Up Bitmap", which may be defined as the "binary OR" combination of all rolled up

attribute bitmaps from the child-Stations. The distribution servers within a Distribution Server Cluster use the attribute bitmap to distribute and route portions of large payload files and they use the • aggregated rolled-up attribute bitmap to terminate unnecessary propagation of messages. One of the Stations in an SCDN is designated the "Central Station". The Central Station holds an attribute database table that matches text strings to bit positions, e.g., a reference table. A data repository for all content but may contain some or all the content (see col. 25, lines 27-48, Sim).

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the cited references because VCR represents a plurality content repositories logically as one single content repository of Sim's teaching would have allowed Van Huben's system to optimized, so that large payload files can be distributed across existing networks (including the Internet and corporate intranets) using a transport layer network overlay to push content to the edge of the network as suggested by Sim's at col. 9, lines 9-12.

As to claim 2, Van Huben teaches the content repository identifier comprises: a repository name (C14:L30-40); and a content identifier that is unique for the content repository (C14:L15-20).

As to claim 4, Van Huben teaches a property is an association between a name and at least one value (C10:L39-56; C17:L5-13); and wherein the at least one value can be stored in one of the at least one content repositories (C10:L39-56; C17:L5-13).

As to claim 5, Van Huben teaches the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data (C10:L39-56; being a

Art Unit: 2162

computer implemented data array the data contained within must be represented as binary data).

As to claim 6, Van Huben teaches the property definition can specify at least one of the following for the property: property choices; a reference; a data type; whether the property is mandatory; whether the property is multi-valued; whether the property is primary; whether the property is read-only; and whether the property is restricted (C10:L54-55).

As to claim 7, Van Huben teaches the data structure is hierarchically related to other data structures and the at least one content repository (figure 4A; C11 :L1-12).

As to claim 8, Van Huben teaches the data structure is hierarchically inferior to the at least one content repository (figure 4A; C11 :L1-12).

With respect to claim 25, Van Huben teaches storage medium for storing data for access by an application program being executed on a computer system, comprising:

- a first object storage medium to provide a first group of services related to interacting with a hierarchical namespace (figure 2, element 24; C13:L47- 49);

- a second object storage medium to provide a second group of services related to associating information with the first object (figure 2, elements 23 & 24; C13:L34-43);

- a third object storage medium to provide a third group of services related to describing attributes of the second object (figure 2, elements 22 & 23; C13:L17-30);

- wherein the first object is logically part of a virtual content repository (VCR) and includes,, and wherein the VCR represents a plurality of content repositories logically

Art Unit: 2162

as one single content repository encompassing the plurality of content repositories from the application program's standpoint (Figures 4A and 4B);

wherein content repository is a searchable data store (see abstract).

Van Huben does not explicitly indicate VCR represents plurality of content repositories logically as one single content repository as claimed.

Sim teaches stations of SCDN are organized in a logical virtual tree structure in which each node in the tree has a set of attributes. Thus, each Station has an attribute set that is stored in the node and can be represented in any convenient data structure, e.g., the attribute set can be represented as an attribute bitmap. Each Station (i.e., node) also contains a representation of the rolled up attribute set of each of the station's child-Stations. This representation is called the "Rolled Up Set of Attributes" and any convenient data structure can be used for it, e.g., a "Rolled Up Bitmap", which may be defined as the "binary OR" combination of all rolled up attribute bitmaps from the child-Stations. The distribution servers within a Distribution Server Cluster use the attribute bitmap to distribute and route portions of large payload files and they use the aggregated rolled-up attribute bitmap to terminate unnecessary propagation of messages. One of the Stations in an SCDN is designated the "Central Station". The Central Station holds an attribute database table that matches text strings to bit positions, e.g., a reference table. A data repository for all content but may contain some or all the content (see col. 25, lines 27-48, Sim).

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the cited references because VCR represents

a plurality content repositories logically as one single content repository of Sim's teaching would have allowed Van Huben' system to optimized, so that large payload files can be distributed across existing networks (including the Internet and corporate intranets) using a transport layer network overlay to push content to the edge of the network as suggested by Sim's at col. 9, lines 9-12.

As to claim 26, Van Huben teaches the first group of services comprises: first functions that enable associating the first object with a location in the namespace (C12:L66-C13: L16; C13:L47-54).

As to claim 27, Van Huben teaches the second group of services comprises: second functions that enable creating, reading, updating and deleting the information (C13:L47-53).

As to claim 28, Van Huben teaches the third group of services comprises: third functions that enable specifying at least one of the following for the second object: information choices; a reference; an information type; whether the information is mandatory; whether the information is multi- valued; whether the information is primary; whether the information is read-only; and whether the information is restricted (C13:L17-22).

As to claim 29, Van Huben teaches a fourth object to specify a location of the first object in the namespace (C14:L9-18).

As to claim 30, Van Huben teaches the fourth object includes: a content repository name (C14:1_9-18); and a content identifier that is unique for the content repository (C14:L9-18).

As to claim 32, Van Huben teaches a fifth object to provide a fifth set of services related to searching the VCR (figure 2, element 20; C11 :L45-49).

As to claim 33, Van Huben teaches the second object associates a name and at least one value (C14:L15-18); and wherein the at least one value can be stored in one of the at least one content repository (C13:L44-53).

As to claim 34, Van Huben teaches the at least one value can be a text string, a number, an image, an audio/visual presentation, or binary data (C14:L40-48).

As to claim 35, Van Huben teaches the first object is hierarchically related to other objects and the at least one content repository (C11 :L1-12; C13:L44-46).

As to claim 36, Van Huben teaches there is no second object (figure 2, element 21 ; by stating that there is no second object the applicant is also removing the functionality of the third object, thus the whole system seems be represented as one object).

As to claim 37, Van Huben teaches a sixth object to provide a sixth group of services related to configuring the VCR (figure 2, element 20; C11 :L45-49).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

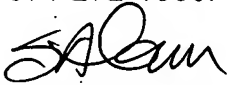
Art Unit: 2162

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid Al Alam whose telephone number is (571) 272-4030. The examiner can normally be reached on Monday-Thursday 8:00 A.M.- 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Shahid Al Alam
Primary Examiner
Art Unit 2162

14 October 2007